

## EAST Search History

| Ref # | Hits | Search Query  | DBs                       | Default Operator | Plurals | Time Stamp          |
|-------|------|---|---------------------------|------------------|---------|---------------------|
| S1    | 1    | 10/530002   | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>08:17 |
| S2    | 116  | (((((tetraamino "tetra-amino") and (carboxylic)) (diaminocarboxylic "diamino-carboxylic")) and (polyphosphoric "poly-phosphoric" "h.sub.3po.sub.4" "h.sub.4p.sub.2o.sub.7" "h.sub.5p.sub.3o.sub.10" "h.sub.6p.sub.4o.sub.13" "h.sub.3.p.sub.3o.sub.9" orthophosphoric pyrophosphoric tripolyphosphoric tetrapolyphosphoric trimetaphosphoric "riel-de" adj haen) and (sulfonic "h.sub.2so.sub.3" phosphonic "h.sub.3po.sub.3"))   | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>08:42 |
| S3    | 26   | S2 and ("429".clas. 521/25-39.ccls.)  | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>08:59 |
| S4    | 42   | ("429".clas. 521/25-39.ccls.) and (hydrolyz\$3 with (polyphosphoric moieties moiety "poly-phosphoric" "h.sub.3po.sub.4" "h.sub.4p.sub.2o.sub.7" "h.sub.5p.sub.3o.sub.10" "h.sub.6p.sub.4o.sub.13" "h.sub.3.p.sub.3o.sub.9" orthophosphoric pyrophosphoric tripolyphosphoric tetrapolyphosphoric trimetaphosphoric))   | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>09:05 |
| S5    | 34   | S4 not S3   | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>09:05 |
| S6    | 1    | 10/529993   | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>09:23 |
| S7    | 5402 | (isophthalic terephthalic phthalic hydroxyisophthalic hydroxyisophthalic hydroxyterephthalic aminoisophthalic dimethylaminoisophthalic diethylaminoisophthalic dihydroxyterephthalic dihydroxyisophthalic dihydroxyisophthalic dihydroxyphthalic dihydroxyphthalic fluorophthalic fluoroisophthalic fluoroterephthalic tetrafluorophthalic tetrafluoroisophthalic tetrafluoroterephthalic naphthalenedicarboxylic 1,5-naphthalenedicarboxylic naphthalenedicarboxylic naphthalenedicarboxylic diphenic dihydroxynaphthalene dicarboxylic carboxyphenyl (benzophenone near2 dicarboxylic) dicarboxyphenyl (biphenyl near2 dicarboxylic) trifluoromethylphthalic (carboxyphenyl near2 hexafluoropropane) stilbenedicarboxylic carboxycinnamic | US-PGPUB;<br>USPAT; USOCR | OR               | ON      | 2008/02/06<br>09:45 |

|     |     |   |                           |    |    |                     |
|-----|-----|---|---------------------------|----|----|---------------------|
|     |     | carboxyphenylphosphonic tricarboxylic<br>tetracarboxylic benzenetricarboxylic<br>trimesic benzenetricarboxylic trimellitic<br>iminodiacetic biphenyltricarboxylic<br>pyridinetricarboxylic<br>biphenyltetracarboxylic<br>benzophenonetetracarboxylic<br>naphthalenetetracarboxylic dicarboxylic<br>pyridinedicarboxylic) and<br>(polyphosphoric "poly-phosphoric" "h.<br>sub.3po.sub.4" "h.sub.4p.sub.2o.sub.7"<br>"h.sub.5p.sub.3o.sub.10" "h.sub.6p.<br>sub.4o.sub.13" "h.sub.3.p.sub.3o.sub.9"<br>orthophosphoric pyrophosphoric<br>tripolyphosphoric tetrapolyphosphoric<br>trimetaphosphoric "riel-de" adj haen)<br>and (sulfonic "h.sub.2so.sub.3"<br>phosphonic "h.sub.3po.sub.3") |                           |    |    |                     |
| S8  | 57  | S7 and ("429".clas. 521/25-39.ccls.)  | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2008/02/06<br>09:48 |
| S9  | 32  | S8 not (S3 S5)  | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2008/02/06<br>09:48 |
| S10 | 77  | ("429".clas. 521/25-39.ccls.) and<br>((hydrolyz\$3 hydrolysis) with<br>(polyphosphoric moieties moiety "poly-<br>phosphoric" "h.sub.3po.sub.4" "h.sub.4p.<br>sub.2o.sub.7" "h.sub.5p.sub.3o.sub.10"<br>"h.sub.6p.sub.4o.sub.13" "h.sub.3.p.<br>sub.3o.sub.9" orthophosphoric<br>pyrophosphoric tripolyphosphoric<br>tetrapolyphosphoric trimetaphosphoric))   | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2008/02/06<br>10:36 |
| S11 | 26  | S10 not (S3 S5 S8)  | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2008/02/06<br>10:37 |
| S12 | 30  | ("429".clas. 521/25-39.ccls.) and<br>((hydrolyz\$3 hydrolysis) with<br>(polyphosphoric "poly-phosphoric" "h.<br>sub.3po.sub.4" "h.sub.4p.sub.2o.sub.7"<br>"h.sub.5p.sub.3o.sub.10" "h.sub.6p.<br>sub.4o.sub.13" "h.sub.3.p.sub.3o.sub.9"<br>orthophosphoric pyrophosphoric<br>tripolyphosphoric tetrapolyphosphoric<br>trimetaphosphoric))  | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2008/02/06<br>11:04 |
| S13 | 2   | S12 not (S3 S5 S8)  | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2008/02/06<br>11:05 |
| S14 | 237 | ((hydrolyz\$3 hydrolysis) and<br>(polyphosphoric "poly-phosphoric" "h.<br>sub.3po.sub.4" "h.sub.4p.sub.2o.sub.7"<br>"h.sub.5p.sub.3o.sub.10" "h.sub.6p.<br>sub.4o.sub.13" "h.sub.3.p.sub.3o.sub.9"<br>orthophosphoric pyrophosphoric<br>tripolyphosphoric tetrapolyphosphoric<br>trimetaphosphoric)) not us.pc.   | EPO; JPO;<br>DERWENT      | OR | ON | 2008/02/06<br>11:06 |

|     |      |  |                                   |    |    |                     |
|-----|------|--|-----------------------------------|----|----|---------------------|
| S15 | 50   | ((hydrolyz\$3 hydrolysis) with (polyphosphoric "poly-phosphoric" "h.sub.3p.o.sub.4" "h.sub.4p.sub.2o.sub.7" "h.sub.5p.sub.3o.sub.10" "h.sub.6p.sub.4o.sub.13" "h.sub.3.p.sub.3o.sub.9" orthophosphoric pyrophosphoric tripolyphosphoric tetrapolyphosphoric trimetaphosphoric)) with (strong\$3 strenghten\$3 hard\$3) | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/06<br>13:11 |
| S16 | 0    | S15 and ("429".clas. 521/25-39.ccls.)  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/06<br>13:22 |
| S17 | 1    | "20040062969".pn.  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/06<br>13:42 |
| S18 | 1    | "4414383".pn.  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/06<br>14:22 |
| S19 | 2    | 10/416551  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>09:18 |
| S20 | 2231 | carboxyphenlyphosphonic<br>carboxyphenylsulfonic diaminobenzoic  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:19 |
| S21 | 2228 | (carpoxyphenlyphosphonic<br>carboxyphenylsulfonic) near2 (diamino)<br>diaminobenzoic   | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:20 |
| S22 | 3    | (carpoxyphenlyphosphonic<br>carboxyphenylsulfonic) near2 (diamino)   | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:20 |
| S23 | 2228 | diaminobenzoic   | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:21 |
| S24 | 22   | S23 and (polymer adj exchange adj<br>membrane pem)   | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:21 |
| S25 | 0    | diaminobenzoic near (dicarboxylic)   | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:22 |
| S26 | 46   | diaminobenzoic with (dicarboxylic)   | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/08<br>14:22 |
| S27 | 5    | (carboxyphenylphosphonic<br>carboxyphenylsulfonic "carboxy-phenyl-<br>phosphonic" "carboxy-phenyl-sulfonic")<br>and (electrolyte proton near4 conduct<br>\$3)  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/12<br>15:33 |
| S28 | 195  | (diaminobenzoic "di-amino-benzoic"<br>"diamino-benzoic") and (electrolyte<br>proton near4 conduct\$3)  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/12<br>15:35 |
| S29 | 192  | S28 not S27  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/12<br>15:36 |
| S30 | 29   | S29 and ("429".clas. "521".clas.)  | US-PGPUB;<br>USPAT; USOCR         | OR | ON | 2008/02/12<br>15:37 |
| S31 | 0    | JP-2002146016\$.ipc.   | US-PGPUB;<br>USPAT;<br>USOCR; JPO | OR | ON | 2008/02/25<br>08:04 |
| S32 | 1    | JP-2002146016\$  | US-PGPUB;<br>USPAT;<br>USOCR; JPO | OR | ON | 2008/02/25<br>08:04 |
| S33 | 1    | "5837869".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; JPO | OR | ON | 2008/02/25<br>08:06 |

2/ 25/ 2008 3:32:46 PM

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